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THE GENESEE FARMER.

SATURDAY, JULY 11, 1835.

HINTS ON GARDENING FOR JULY.

In the Kitchen Garden,

The principal attention needed, is to keep the grounds constantly clear from weeds; to keep the soil well hoed and mellowed at the surface, around such plants as admit of it, especially cabbages; and to water such plants as may suffer from drouth during dry weather, always applying the water in the evening.

HERBS required for winter use, may be cut for drying as they come into flower, and spread in a shady place to dry. This should be done during dry hot weather.

TURNEPS may be sown from the middle to the end of the month. It will be most convenient to sow them broadcast, using plenty of seed, and they may afterwards be thinned to a distance of eight or ten inches; the distance should in some measure be regulated by the quality of the soil, more room being required for plants growing in a rich than in a poor soil. The best soil for this crop is one which is light and sandy, manured previously to sowing with short rotted manure or compost. Soon after the seed is sown, a brood of young chickens should be turned loose upon the ground, as they are found to afford the best protection from insects to the new plants of any thing yet devised, on account of the great numbers which they are perpetually devouring by their constant vigilance.

The Fruit Garden

Will need occasional attention during this month. Trees heavily loaded should have the fruit thinned upon the branches, or else it will be small and of an inferior flavor. Peaches and nectarines of the large varieties should be left at a distance not less than six inches apart, and the smaller varieties at a distance of four or five inches. Apricots and plumbs should be thinned to a distance of three or four inches generally, varying however according to their size. The advantages which this method possesses in perfecting the quality of fruit, appear to be little known or little regarded by many. Yet in many instances the excellence of fine varieties depends almost wholly upon it; and fruits of distinguished reputation have been looked upon as inferior kinds, or the trees pronounced spurious, solely in consequence of being prevented from developing their qualities while too thick upon the branches. It has been frequently observed that the fruit which ripens last upon a tree is much larger and far superior in quality to that which ripens earliest, owing to its being thinner and being afforded more room by the previous removal of most of the crop.

The Flower Garden

Should be kept perfectly free from weeds, and watered whenever necessary. Seeds should be gathered, labelled and preserved, as they ripen. Rods and frames should be provided for the support of twiners and climbers. Bulbs which require to be removed, may be taken up as the tops wither, which will generally be in a month or six weeks after the flower is gone. In warm weather they may be dried upon the beds from which they were taken; and as they keep better when dried gradually, it is best to screen them from the sun by a slight covering of dry earth. Care should be taken that the different kinds do not become mixed, and for this purpose they should be placed in separate parcels, and the name attached to each as soon as they are taken up. When dry, they are to be divested of their stems and fibers, and if in small quantities, wrapped in paper separately with their names upon them, or if in larger quantities, they may be packed away in dry sand.

Absorbent Power

Of different earths and soils may be ascertained by drying them thoroughly before a good fire, and afterwards keeping them secluded from the air in closely corked vials, till cool; if then spread upon a dish, the quantity of moisture absorbed in a given time, is readily determined by weighing them in a delicate balance. In these experiments, the substances should be in a finely pulverized state.

To Preserve from Rust, &c.

A piece of linen or cotton cloth, steeped in a saturated solution of lime or sulphate of soda, and carefully dried, preserves from humidity and oxidation delicate steel instruments. Steel instruments may also be preserved in quick lime.

The failure which attends the cultivation of most root crops in drills, proceeds in a great measure from a neglect of weeds in their early stages.

Corn Sown for Fodder.

As a scarcity of hay is to be apprehended in some parts of the country, we would invite the attention of farmers to the practice of sowing Indian corn for fodder. If meadows which now promise but very light crops were ploughed soon and sown with corn, probably an amount might in many cases be obtained ten times greater than could be if the ground were left untouched. It is said that ten tons of green feed may under favorable circumstances be obtained from a single acre. It may be either dried in bundles placed in small shocks, for winter fodder, or be cut and fed in a green state to cattle in autumn, a season when pasture is often scant. The quantity of seed required is about two bushels to the acre. After it is harrowed, a roller should be passed over the ground, to cause the seed the better to vegetate, and to even the surface in order that the crop may be harvested to better advantage. Such a crop might possibly succeed well, if sown after wheat or other grain has been taken from the land.

Grape Vines

Are very easily increased by layers, as they readily root at the joints whenever buried beneath the soil. On a small scale, this method is far preferable to increasing them by cuttings, as it is more certain to succeed, and commonly produces in equal time larger and thriftier plants. The present is a very suitable time for performing the operation, which consists simply in burying in the soil, a few inches, some of the prostrate branches at the middle, which will take root, and may be transplanted next spring; each branch by separation in the middle at the roots, will generally furnish two vigorus plants. A sloping hollow of a few inches depth, should be dug previously, to receive the branches when they are buried, so that the surface of the ground may be left even. It is the growth of the present season only which is to be made use of in this operation.

Importance of Destroying Weeds.

The abundance in which weeds are seen in some fields, shows conclusively that but little of the mischief caused by them is understood. Weeds are injurious to the land and to the crop in almost every possible way that they can be. In the first place they exhaust the soil to support their own useless growth, and abstract that nourishment from it, which ought to go exclusively to support the crop. Secondly, they crowd upon other plants above ground, prevent them from branching out at their roots, and deprive them of a free circulation of air necessary for their health and vigor, so that they shoot up only single, weak, sickly stalks, incapable of producing a valuable crop. Thirdly, they throw off from the soil through their leaves into the air, an almost incredible quantity of moisture, and speedily reduce the ground to so dry a state, as to be fit for weeds only to grow in. So enormous is the quantity thrown off by some plants, that it actually exceeds more than twice their own weight in a single day. A bunch of grass, placed, during a very dry season, under a large vessel, sent off moisture in two minutes so as to cover the vessel with drops, which run down its sides. Dr. Watson, who first performed this experiment, was led to conclude from its results that an acre of grass exhales more than thirty hogsheads a day. Plants are in fact but channels through which moisture is conveyed up from the soil to be dissipated in the air. Hence the absurdity of the opinion that weeds will prevent the ground becoming dry by shading it. Let any one in dry weather examine a piece of perfectly bare soil, a few inches below the surface, and compare its degree of moisture with that of soil at an equal depth, near the roots of a thick growth of weeds, and he will find the difference astonishing.

Now, of what use is it to attempt raising crops if they are to be wasted by a growth of weeds? Of what use is it to buy land, and plough it, and prepare it, and put in the crops, if after all, these crops are suffered to be *eaten up* by such intruders? If a drove of cattle should break into a field, no one would think of resting a moment till they were driven out; and yet many allow myriads of noxious weeds to overspread

their lands, often doing threefold more mischief, with scarcely an effort to check their progress. And this is not only permitted in cultivated fields, but in meadows and pastures, which are sometimes literally covered with Canada thistles, St. John's wort, and many others, to the total exclusion of every thing else from the soil.

A Mammoth.

A Strawberry was presented to us yesterday by C. M. Lee, Esq., which measured 8¼ inches. It was of the Methven variety and the coxcomb shape, and was fairly measured according to Horticultural usage,by Mr. L. B. Langworthy,in the presence of a number of citizens. The same gentleman produced six Strawberries, which measured more than 30 inches, which were selected from a dish of two quarts. In fact berries of 4 and 5 inches are so common in our best gardens, that they are not noticed since the introduction of the new varieties. We are aware that Rochester has the credit of dealing a little in *poetical prose*, but while other places are croaking about 4 and 5 inch berries, we could not restrain mentioning this very extraordinary production. *

Our Correspondence.

For the gratification of our horticultural readers, we copy the following paragraphs from the letter of an esteemed correspondent which we have just received.

"*Catalpa salicifolia* survived the past winter in South Carolina, though the mercury stood at zero or thereabouts. Such being the fact, it may doubtless be carried through our winters in Virginia without much expense in the way of protection; and I apprehend that in the vicinity of your lakes, the weather, though more uniformly cold, is not more rigorous at times than in our climate. The Champney Rose unprotected, is nearly always killed to the ground here; the Multiflora occasionally; and my Greville rose was destroyed last winter to the root.

* * * * * *

"*Andromeda mariana* is the only species that I find here, and it is exceedingly beautiful. The slight blush tint of its tubular flowers, and the glossiness of the foliage, would render it a charming addition to shrubberies."

We have several times introduced *Andromeda mariana* into our grounds; but hitherto it has not succeeded. When a soil shall be *properly prepared* for it however, we intend to renew the attempt.

* * * * * *

"I have not found *Aronia botryapium** so impatient of removal here, as it appears from the "Remarks of a traveler" to be with you. A few years ago, I planted a considerable number on each side of a walk in my garden, as well for ornament as for the fruit, which is wholesome and not unpalatable, especially at a time of general scarcity. I think I did not lose a single plant, though no particular pains were taken in setting them. When in bloom they are very ornamental, exhibiting in about equal numbers, the pure *white* and *blush* varieties which were adverted to in the "Remarks."

We would suggest that the want of success in transplanting *Aronia botryapium* mentioned in the "Remarks," may have been owing to *a deep loose subsoil* whence the seedlings were dug, and into which the principal roots had plunged without obstruction,—not producing lateral fibers till they were below the reach of the spade. We therefore believe that plants taken from spots underlaid by *a hard subsoil*, will be most likely to succeed.

* The Wild Service Tree, or June Berry.

Horticultural Exhibition.

The summer meeting of the Domestic Horticultural Society, of the western part of New-York, was held at the Hotel in Geneva, on Friday the 3d of July instant. The ball room was fitted up for the occasion, and most tastefully decorated by the ladies of the village, with evergreens and flowers, forming in appearance one vast bower, with cages of singing birds concealed among the boughs. A rich and splendid collection of fruits and flowers, together with a display of choice vegetables, were exhibited on the occasion. The meeting was numerously attended by an assemblage of ladies and gentlemen from this and the neighboring villages, some of whom came upwards of twenty miles to witness this beautiful and most interesting exhibition.

The different committees having been appointed, that on flowers being composed of ladies who were not exhibitors, proceeded to inspect the specimens, and the following premiums were awarded and announced at the dinner, which afterwards took place at the Hotel.

On Fruits.

For the best qt. Strawberries,	C. Morse	$2 00
Next best do.	James Bogert	1 00
Best quart Raspberries,	Charles Butler	2 00
Best quart Cherries,	G. J. Grosvenor	2 00
Next best do.	Wm. H. Adams	1 00
Best quart Gooseberries,	Charles Butler	2 00
Next best do.	John Greig	1 00
Melons—a discretionary premium,	Alex. Duncan	1 00
Figs— do. do.	John Greig	1 00
Winter Apples in excellent condition,	George Goundry	1 00

On Flowers.

For the most beautiful and desirable Moss Rose,	Mrs. Balmanno	1 00
Next best do.	Mrs. Hopkins	1 00
Multiflora or Cluster Rose,	Mrs. Balmanno	1 00
Most beautiful Tuberose,	Mrs. Greig	1 00
African Lily,	Mrs. Greig	1 00
Most splendid Dahlia,	Edward Thomas	1 00
Collection of beautiful Flowers of six sorts,	Mrs. Balmanno	1g00
do. do.	Mrs. Hopkins	1 C0
do. do.	Mrs. Langdon	1 00
do. do.	Mrs. Dwight	1 00
do. do.	Mrs. DeZeng	1 00
do. do.	Edward Thomas	1 00
Most beautiful green-house Plants,	Mrs. Greig	1 00
do. do. hardy do.	Mrs. Butler	1 00

On Vegetables.

For best half peck green Peas,	Wm. S. DeZeng	2 00
Second best do.	John Greig	1 00
Best 100 shoots of Asparagus,	John Greig	1 00
Socond best do.	Wm S. DeZeng	50
Best dozen of young Turneps,	John Greig	1 00
Best dozen of young Onions,	George Goundry	1 00
Second best do.	Alex. Duncan	50
25 best young Potatoes,	S. M. Hopkins	1 00
Second best do.	James Bogert	50
3 best Cabbage heads,	James Bogert	1 00
6 best young Lettuce plants,	Joseph Fellows	1 00
Second best do.	Alex. Duncan	50
25 best Radishes,	Alex. Duncan	50
Second best do.	John Greig	25
6 best blood Beets,	James Bogert	1 00
Second best do.	John Greig	50
6 best Cucumbers,	Bowen Whiting	1 00
Second best do.	Joseph Fellows	50
12 best Carrots,	Alex. Duncan	1 00
Second best do.	John Gerig	50

Discretionary Premiums.

For a new variety of Lettuce,	S. M. Hopkins	1 00
A new variety of long pod Beans,	Alex. Duncan	1 00
2 very fine Cauliflowers,	A. W. Langdon	1 00

John Greig, Esq. President of the Society, was in the Chair at the dinner, and in justice to Mr. Brace, the landlord of the Hotel, it is fair to say that it was considered one of the very best ever provided for the Society.

It was Resolved, that the autumnal meeting of the Society be held in Canandaigua, in September next, when it is expected that a very interesting exhibition will be made, as the season is highly favorable, and promises a great abundance of fruits and vegetables.

Lines,

Written by Mrs. Balmanno, for the Geneva Horticultural Exhibition, 1835.

Fair scenes and happy hours to them,
Who thus have culled from many a stem,
The beautiful and bright;
Oh! ne'er did Flora's diadem,
Or thine, Pomona, wear a gem
More fair than here in sight.

Not Eden's gifts, profusely pour'd
By Eve upon the festal board,
To banquet Angel guest,
Could more enchanting sight afford,
Or make the *Being* more adored,
Who thus man's toil hath blest.

Around the deep love-breathing rose,
The Passion flower its tendril throws,
The clasping Jasmin twines;
And where the splendid Dahlia glows,
Graceful the fair Geranium blows,—
The bright Carnation shines.

And like a cup from which the lip
Of Egypt's Queen her pearl might sip,
The Callæ of the Nile,—
Its dark leaves curling as to dip,
In the lull'd wave that bore her ship,
To meet Antonia's smile.

And lovelier still, here to unfold
The charms Ontario's forests hold,
Deep in their cloister'd gloom,
The Moc'ssin, silvery-pale, or gold,
The Gentian, midst its fringes roll'd,
And the Azalea's bloom.

Nor be the Trillia's bell forgot,—
The rich Battitia's scarlet knot,
Or those wild plumes* that wave,
Their shadowy crimson o'er some spot
Where ancient trees make day forgot,
And the young heart less brave.

Oh Forest flowers! how rich, how full
Your sylvan wreath—how beautiful!
Nature! we bow the knee—
And while from art we treasure cull,
Confess how joyless, cold and dull
Are all, compared with Thee.

ERRATA.—Page 169, col. 2, line 11, for *hoop* read *hoofs*.

Suckers on Indian Corn.

Farmers have been divided in the opinion, whether it was best to deprive Indian corn of the suckers which are give out from the roots, &c, or not. We have been inclined to the opinion that it was best, considering them as depriving the kernel of food which it ought to have, and thereby lessening the crop.

Some statements in the last Cultivator, if correct, prove that is wrong to cut them off, but that they should be allowed to spindle and become matured with other stalks. Why this should be done will be best understood by stating a few

* The Cannæ and Lobelia cardinalis—which, with the forest flowers enumerated, and a great variety of others, are cultivated by, and may be procured from Mr. Dell, of Junius.

stems of the process of fertilizing the seeds of plants. It is a fact, that plants are both male and female, and that the yellow dust or pollen which is produced by a certain part of the flower must be received, or a part of it, by another part of the flower or plant, and conveyed to the seeds, or they will never come to maturity. Now pollen, in Indian corn, is formed by the spindle, and this must descend upon the silk which is put out from the husk or ear, and be thence conveyed to the seed, and causes it to become matured or ripened. Hence the reason why some rows of corn in an ear, or the tips of some ears, have no kernels; they have not received any pollen. The statement of the person alluded to is to the following purport, viz: The lower portion of kernels put out the silk first, and the higher ones in succession—a new circle of them presenting themselves continually until they are all out and all impregnated. Now the male blossoms, on the spindle, do not remain in vigor more than six days, and if the weather be hot and dry not so long. There is danger therefore, that all the kernels will not become fertilized by the main stalks, but the suckers coming after in succession, will afford sufficient for the purpose, and the ears become filled. There is not the least doubt on the score of the necessity of the pollen of the spindle for rendering the kernel of the ear plump and good; but the question to be decided is, does the spindle of the main stalk ever fail of doing this? If it is common for them to do this, then the suckers, if they grow up and spindle in season, are absolutely necessary, and should never be cut down. It is a subject worth examining, and we hope our farmers will watch narrowly this summer and test the truth of it.—*Maine Farmer.*

Extract from a communication in the Virginia Farmer's Register.

But upon the use of clover he said he thought he could impart to me a valuable secret. It was a discovery made by himself, had been adopted by his immediate neighbors, and they had all pronounced it in a high degree successful.

He stated it was his custom, immediately after ploughing through his corn a second time, (to weed it,) and after it had attained something like a foot in height, to sow clover seed in among it. That the clover would spring up too late to offer any obstruction to the corn, and it would answer the double purpose of not only shielding the earth from the impoverished heat of the sun, but of also cleansing the field from all noxious weeds. The corn then matures—it is gathered in due season—and then says he, I turn my cattle in upon the clover, or let the field lie as I may think proper. The fall comes, and I plough my field up, and have a fine clover fallow upon which to sow what is usually denominated the corn ground wheat.

The remark struck me, with my limited knowledge of agriculture, as being practicable, and now that the season approaches when it may be tried, or improved upon, I have taken the liberty to communicate it. It can at least do no harm to try the experiment, and if successful, it will always be a source of gratification to me to know that I have suggested any thing, however trifling, that can redound to the advancement of the good "Old Dominion."

Ticks on Lambs.

When sheep have been shorn, the ticks, with which they are apt to abound, seek shelter in the fleeces of the lambs, or are destroyed by the shorn sheep. They are often so numerous upon the lambs as not only greatly to annoy them, but seriously to injure their health and their growth.—The following effectual method to destroy them, has been detailed to us by Judge Bostwick, of Delaware county, whose statement may be implicitly relied on.

Finding his lambs, in former years, very much injured by ticks, he procured four pounds of tobacco, boiled it in water, put the strained liquor into a half-hogshead tub, diluted it with water till he found on trial that it had just sufficient strength to kill the ticks in a minute or two, placed an empty kettle by the side of the tub, and when cold, proceeded to apply it to the lambs in the manner following. One man took the lamb by his fore legs and head, and plunged it into the liquid, leaving only its head out—he next raised it and held it over the empty kettle, when a second man pressed out of the fleece all the liquid which would flow into the kettle. This completed the operation. The liquor was then turned from the kettle into the tub, and the operation repeated upon the rest of the young flock. In shearing the present year the Judge discovered but two ticks upon his entire flock.—*Cultivator.*

Diseases of the Potatoe.

In Great Britain the potatoe has been subject to a disease for years called the *curl;* but as it has never appeared in our country, we refrain from noticing its character, or the modes which have been suggested for its cure. More recently, and particularly the last season, great loss to the potatoe crop was experienced there from the seed rotting in the ground; and many speculations as to the cause, and the means of prevention, have been published in their agricultural periodicals.—We have reason to believe that we have more or less the same cause of complaint. Our late planting last year of this crop, proved wretchedly defective, in consequence of four-fifths of the seed not growing, while those planted early throve as usual. The seed had all been cut early in May, but that planted late appeared to be defective, and the sets partially decayed. Among the many causes assigned for this evil, one in the "Irish Farmer's Journal," by Mr. Hinckley, appears to us to be the most rational, and his mode of prevention the most efficient. He says it is caused by animalcula, which swarms in the cut seed, and which ultimately destroys its germinating power; and that steeping the seed in salt and water destroys them. Of 34 acres under potatoes in 1832, a complete failure of the crop ensued, from this cause. This led to various experiments, all of which failed of being beneficial save that of soaking the seed in brine. In the seed which he had not immersed in brine, he could distinctly see, with the aid of a powerful microscope, many small white particles like eggs; and those cuts which he had immersed, presented no such appearance. This discovery impelled him to follow up the examination attentively; and every day for a short period, he continued to watch the appearance of the matter. The result was, that those white globular particles were animalcula, for in a few days they became quite visible to the naked eye in the form of maggots. The cuts that had been steeped never showed the slightest appearance of any such thing, and they retained their solidity and firmness when the other cuts were completely decayed and rotted.

An interesting experiment, *to preserve potatoes through the summer*, without destroying their vegetating principle, is published in the Edinburgh Quarterly Journal of Agriculture for March. M. De Lancey, in March, 1803, buried some potatoes of the preceding year's crop in his court yard, in a hole two and a half feet deep, under the protection of a south wall, where the sun shone but a short time in the day. On the 24th January, 1804 nearly eleven months afterwards, on examining them, he found to his astonishment, that, two or three excepted, which were perforated by the ground worm, though firm, they were all perfectly sound, without having in the least vegetated in any respect, fit for the purpose of planting and the use of the table, as he boiled some and found them similar in taste and flavor to new potatoes.

This experiment, in connexion with others which we have seen noticed, goes to show, that it is the temperature, and not the season, which induces the sprouting of potatoes. The practical improvement which these facts suggest, is to exclude the potatoes which we wish to preserve for summer use from atmospheric influence and a warm temperature, in vaults, deep trenches or cool cellars. All vegetables keep best in a temperature a little above the freezing point. The potatoe, in particular, soon loses the fineness of its flavor, and becomes sodden, if stored in a warm cellar, and exposed to the influence of the atmosphere. A farmer of Scoharrie has been accustomed to bring fine Spitzenburgh apples to market on the 4th of July; and the method he adopts to preserve them to so unusually a late period, is simply, we are told, to keep them, after they are gathered, in a temperature as little above 32° as possible.—*Cultivator.*

From the Silk Culturist.

Seed Time for the Mulberry.

By the following communication from Mr. Boynton, an experienced cultivator of the mulberry, it will be seen that he considers the month of August a favorable time for sowing the seed. We have heard other practical gentlemen make the same remark and are inclined to the belief, that with proper attention and protection the plants will be as forward the second year as those that are sowed in the spring. We hope such gentlemen as have not sowed nurseries, will avail themselves of the new crop of seed and put it into the ground the present season.

Sir:—The scarcity of mulberry seed the present season having prevented many persons from sowing nurseries in the spring, I take the liberty of informing them thro' the medium of your paper, that from experiment, I am satisfied that in the month of August the seed will vegetate quickly, and by the time of the early autumnal frosts, the plants will have grown to the height of three or four inches. They may then be easily covered with straw and horse manure, which will sufficiently protect them through the winter. In covering them but little straw should be used, otherwise, the rats and mice may be induced to burrow in it, in which case they will most assuredly destroy the plants. If the seed is sown at this season and protected in this manner, they start early the following spring, grow vigorously thro' the summer and by autumn attain about the same height as though sown the preceding spring. Another advantage from sowing in August is that seed of the same year's growth may be obtained, which is more sure to vegetate. J. W. Boynton.

South Coventry, Ct., June 25th, 1835.

Seed Cocoons.

In the selection of cocoons for seed care should be taken that an equal number of males and females are preserved. The sexes are distinguished by the external appearance of the cocoons.—Those of the females are the largest and fullest in the middle, while those of the male are smaller, have a ring drawn tight in the middle and have one, and sometimes both ends a little compressed. After they are selected they should be strung on separate threads, and care be taken that the needle do not penetrate too far in stringing. In about two weeks from the time of rising to spin, the moths will come out of the cocoons. This ordinarily happens in the morning, and the males and females should be kept separate an hour or two, after which they should be placed together in pairs on sheets of paper and laid away in a dark room until the female has done laying her eggs. This will occupy several days.

It will be found convenient to have paper boxes perforated with small air holes, in which to confine the males from the time of their coming out of the cocoons until the time of coupling them with the females. In a week or ten days after the eggs are laid upon the paper, the sheets should be folded up, packed away in a tight box and deposited in a cool dry cellar there to remain through the winter. The number of eggs laid by each moth is from three to five hundred.—*Silk Cul.*

COMMUNICATIONS.

Improved System of Farming.

BY VORUS.

Since Agricultural Journals came into being, great and numerous have been the improvements in husbandry. Although it is foreign to my plan to enumerate the many improvements that have been discovered, or arrange them in a systematic order, yet the mention of two or three may perhaps be acceptable.

Through the medium of papers devoted to Agriculture and its kindred arts, practical and scientific men are mutually and continually exchanging their opinions; holding them out to public view; and if errors are imbibed they are instantly corrected by men of experience. Hence comes a knowledge of the improvement of farming, and a farmer who takes not, nor reads, an Agricultural paper, but contents himself with the old, worn-out system of his ancestors, is infinitely behind the spirit of the times.

The use of clover and plaster may be considered as a valuable improvement and an indispensable appendage to farm operations. By their application, the most barren and sterile lands have been converted into the most rich and fruitful soils. Nature seems to have provided these as a substitute for other manures; although more attention is paid to the preparation and proper use of other manures than formerly; but manure has always been used freely, while our farms were growing poorer, and had not the use of clover and gypsum been introduced, the deterioration would have continued in spite of all the manure ordinary farms could have produced. Lime and ashes, also, on some lands, have been found to act an important part in the agency of increasing fertility; and the farmer now, instead of selling his ashes at ten cents per bushel, as has commonly been the case, judiciously applies them to his land, where he reaps a benefit of five times the product. In connection with these, the barn yard and other manure that ordinarily attends the farm, and an intelligent cultivation,—a judicious system of rotation of crops,—have brought about an improvement in our lands, highly creditable to its authors,—an improvement which is worthy of our highest regard.

It is found by a chemical process that different lands require different manures; then in order to become thoroughly acquainted with the process and economy of vegetation, a knowledge of Agricultural Chemistry is desirable. After there has been so many elaborate essays and successful experiments, by gentlemen who have aimed at the melioration of Agriculture, in testing the utility of this science,—I say after this has been done, who, in this age of light and knowledge, would wish to remain in ignorance in regard to this interesting branch of natural science? It will furnish the farmer with an almost infallible test of the quality of his land, and what kind of manures are best adapted to it. The theory of manures seems to be the great desideratum in all Agricultural improvement. A knowledge of this science would often materially aid us in the investigation of the nature and comparative fertility of our lands. It is, however, a science that is fast coming to light—a science that will be universally known and adopted before the lapse of half a century.

The raising of cattle is now deemed an object worthy of the attention of farmers generally. Since the introduction of green crops, that is, the Ruta Baga, Mangel Wurzel, Carrots, &c., the facility of rearing and fattening cattle has abundantly increased. We knew nothing of the utility of these roots until we read it in the Genesee Farmer; and we have this year sowed about forty square rods of them in order to test their usefulness by experience. But the improvement does not depend altogether upon these crops. The introduction of various foreign and native breeds of cattle into our country, in uniting the two essential properties of milking and feeding, have elicited some attention with our farmers; and perhaps the improvement may be principally ascribed to this. But for information in regard to what breeds of cattle are the most useful to the farmer in milking and fattening we must turn to the communications of Ulmus, Quercus, and others in the Genesee Farmer. These experienced gentlemen, by their unwearied endeavors, have delineated there the characteristics of the American and foreign breeds of cattle, in a manner deserving of the highest commendation from our fellow citizens. We think they have been as successful as their efforts have been meritorious. "Wherever the true character of the fine Short Horn stock is known, they have superseded all others; and none but those who misjudge their own interests will fail to introduce them to their farms and neighborhoods when practicable." And they are being introduced, as the intelligent writer had predicted. The stock which is the most profitable to the farmer must depend in a great measure on the adaptation of the soil to raise natural or artificial grasses, and the nearness of the farm to a good market. On some a dairy may do best—on some the fattening of cattle—on others the raising of sheep; but the last is attended with the least trouble. The market for the carcase or the wool is almost always at hand, and upon the whole, particularly in the interior, generally the most profitable. We are glad to find this branch of husbandry in a rapid state of improvement.

That an improved state of farming has been introduced into this country—that farmers are beginning to treat the soil on more rational and scientific principles—that a great improvement in cattle and sheep husbandry has taken place within a few years, are facts which need not be labored to establish; and this improvement must be principally ascribed to the influence of agricultural societies and journals. The time is fast approaching when the honest, industrious yeomanry of the country will assume that rank and dignity which their calling deserves. But I must close these unconnected remarks, lest, for a beginning, I tire the patience of the reader.

VORUS.

Second Crop of Wheat from the SAME ROOTS.

In Sharon Turner's Sacred History of the World, vol. II. page 290, Harper's Edition, occurs the following note, from Lance's Golden Farmer, a late English publication of considerable pretension. "Many districts in the west of England do not require any sort of manure, the red soils particularly. The best soil in England for wheat, or indeed for any other grain, is the red marl; the New Red Sandstone of geologists. This soil extends from Devonshire, through Somerset, Gloucester, &c. &c. to Cheshire, branching to the east through parts of Leicester, Nottingham and Yorkshire. On many parts of this district the farmers scarcely ever put on any sort of animal or vegetable manure. Lime is their principal dressing. So congenial is it to the produce of wheat, that in particular seasons, *the old stools will throw up a crop the succeeding year.*" In corroboration of this statement, the following extract of a letter from Mr. Dickson, a gentleman in this district, is also added. "With respect to the soil which produced the second crop of wheat from the old root, I can assure you it was a fact; and had I left it to ripen, I have no doubt I should have had fifteen bushels per acre, which I consider a fair average crop on the soil where it grew."

The fact here stated of a second crop of wheat from the same roots, was perfectly novel to me, and I question whether any of our wheat growers in the most fertile parts of the district, have ever witnessed any thing of the kind. Wheat may self sow, and grow, and I suspect that it was something of the kind here. This however is the age of improvement, and who knows that we may not yet cut as many successive crops of wheat from the same roots, as we now do of clover or herdsgrass. At any rate I should be unwilling to acknowledge, without the most conclusive proof, that in the production of wheat, Old England was ahead of Old Genesee. W. G.

Stone Ware.

We are pleased to find that this valuable article is manufactured in Portland, as may be seen by a notice on the next page of this paper. Stone ware, as it relates to economy, health, cleanliness and various other advantages, is far superior for dairy purposes, to any other ware now in use among us. This is our humble opinion, and if we mistake we should be pleased to be corrected, and if any other ware is more valuable, we should be happy to know it, and in making it known to others.

Wooden ware is expensive, it imbibes moisture, is hard to cleanse, and is not sufficiently cool for hot weather. Tin ware is liable to the same objections as to expense and coolness, and as it is a metallic substance it is liable to be destroyed by acids. Common earthen ware is much more expensive than stone ware, if we consider the strength and durable nature of the latter; it is very liable to break; it soon decays and wears out; but the greatest objection to its use is that it is very injurious to health; it is glazed with lead, a very poisonous substance, which is corroded by acids, produced by a change in the milk or cream, and is taken in small doses by thousands unconscious of the injury or danger attending it. There is no doubt that many, who are occasionally unwell and unable to trace the cause of their illness, would find that a little attention to simple facts in science would save much suffering. The child is early taught that fire will burn him, and that Jack Frost will bite him, and it is equally important that he should know that sour substances (called acids) will corrode metals, and that some of them, particularly lead and copper are deadly poisons, and yet are used in the composition of vessels for domestic purposes, (the former in glazing, and the latter in the compound called brass) they are destroyed by the action of vinegar, sour milk, cream, buttermilk, preserves, apple sauce, &c., and form a noxious ingredient in our food.

Much has been said in favor of zinc ware as producing more and better cream. Poh! Poh!

How easily it is for some people to talk nonsense when they can make folly pass for wisdom, and fill their own pockets by emptying those of others, injuring their health, &c. Some years since, zinc canteens were recommemdeded for the use of the soldiers in the French and Spanish armies; the most able chemists in those countries were appointed to consider the propriety of the measure, who reported that zinc was not suitable for that purpose as acids would destroy it and the health of the soldiers would be injured as they used their canteens for vinegar.

We have found that most all kinds of ware generally used among us for milk, cream, butter, and many other purposes are liable to many objections, and we have wished to find some better article that wonld be cheap, durable, pure and wholesome. We find that stone ware has all these advantages; but we were not convinced of this until we visited the manufactory referred to and saw the process of making the ware, and the materials used in its composition; not having been able to learn any thing particularly concerning that branch of manufacture before.

The body of this ware is composed of clay that becomes hard like stone by burning, and is very strong. It is glazed with another kind of clay that melts with less heat; this clay is ground fine, and made into a semi-liquid substance with which the ware is washed; in burning it is heated until the clay used for glazing is melted and forms a hard smooth glazing, that is not affected by acids or salts; and even were it pounded up and taken in food it would not be poisonous like the metals we have named, it being nothing but an earth.

We advise all who have occasion to use vessels for domestic purposes, as they value health and money, and as they regard comfort and neatness, to try at least some of this ware, and judge of its utility; we think its general use would be a very great improvement. Specimens of the ware may be seen at this office.—*Maine Farmer*.

Look Ahead.

Our northern farmers should be admonished, by the scarcity of cattle fodder, coarse grain and vegetables during the last spring, and by the inauspicious prospects of the season, to adopt extra means to provide for the coming winter. In this neighborhood we may anticipate great loss in our wheat crop from the grain worm. In the south, particularly in Virginia, it is already ascertained that this crop will prove greatly deficient. Our Indian corn has been planted late, on account of the backwardness of the season, and the uncommon devastations of the grub and wire-worms have rendered it necessary to plant much of it a second time. Our meadows are unpromising, and the worms are doing much injury in them also. On the whole, we have reason to apprehend a scarcity, though even this apprehension, should it become general, will tend to economy and better management. The season will still admit of expedients to mitigate or to avert the anticipated evil. Some of these we will venture to enumerate, viz.

1. *Millet* may yet be sown, by those who can procure the seed. It may be sown broad-cast, at the rate of four to six quarts an acre, and harrowed in, on any tolerable soil; and though it may not mature its seed, if cut and cured will serve as an excellent winter fodder, and will yield at the rate of one or two tons the acre, according to the richness of the soil. It is cut and cured like hay.

2. *Turneps.* These may be sown all this month, as a separate crop, or among Indian corn, at the last dressing. In open planting, and where the corn has partially failed, a considerable crop may be expected, and more particularly if the corn is cut and stocked, as our practice has uniformly been, as soon as the corn becomes glazed. The yellow Aberdeen keep best. The crop may be secured in pits, as directed for ruta baga, taking the precaution, *by all means*, of limiting the breadth of the pits to 2 1-2 or 3 feet, and of giving vent holes for the rarified air to escape at the crown of the pile. They should be deposited in as dry a condition as profitable.

3. *Corn stalks and husks.* The ordinary value of these may be trebled or quadrupled as cattle fodder, by the mode we have often recommended in the Cultivator, particularly if they are cut small and steamed.

4. *Potatoes, Pumpkins and Apples.* By husbanding these, and not permitting them to be wasted through carelessness, and by COOKING them for swine, a great saving of coarse grain may be made. Let it be remembered, that the value of these, for hog feed, is at least doubled by the process of cooking, intimately mix them, and suffering the mass to become sour before it is fed out.

5. *Cut Provender.* We have the testimony of some of the most eminent horse and cattle managers in Great Britain and in the United States, founded on numerous and nicely managed experiments, that by cutting the straw and hay for our domestic animals, *a saving of more than fifty per cent* may be effected. The ordinary ration for a horse is 28 lbs. of hay for 24 hours. It is found, that by cutting and mixing it with their grain, 8 to 12 lbs. will do as well as 28, fed in the ordinary way. But one fact is to be borne in mind—the feed must be given in mangers, and not in racks. One third to one half of our hay is wasted, from the difficulty of masticating the long stocks, and from our slovenly mode of feeding it either on the ground, where much is trodden under foot and spoilt, or in illy constructed racks.

6. *Buckwheat*, though not a common crop with good farmers, may be a profitable one in 1835. It may be sown during the coming fortnight in the north. A new kind, denominated *Indian Wheat*, the seed of which is small, is represented to be superior in quality, and more productive than the common kind.—*Cultivator.*

Hints to Farmers.

Mr. Editor—At your request, I continue my "*hints to farmers;*" not from a belief that I possess any superior information, but from a wish to impart to agriculturists generally, what is now known only to comparatively few.

Summer Fallowing.

The practice of summer fallowing for wheat on lands free of stumps, stones, and noxious weeds, in my opinion, is not only useless, but injurious to the land.

I take it for granted that the land intended for wheat is in a clover sward, for every good farmer will seed with clover the whole of his arable land.

It is the present practice to plough such ground in the month of June, to cross plough it at a proper time—and just before seeding time to give it a thick ploughing. Here is severe labor for the farmer, and the operation is an expensive one. The farmer may obtain a good crop—but "pays too dear for the whistle."

In the first place, he loses the use of his land at least one season—it requiring two, under this system, to obtain a crop of wheat—and the expense of preparing the ground is very considerable.

Secondly—The green turf is decomposed during the hot months of summer, and the gas so necessary to vegetation evaporates and is lost.

Thirdly—Is it not reasonable to suppose that the soil itself is injured by several months' exposure to the parching rays of the sun during the process? That wheat does not require the decomposition of the sward of clover before it is sown, to produce a good crop, is abundantly proven by the fact that crops are often obtained from clover sward by a single ploughing. This, if done in a farmer-like manner, in good season, is almost certain to afford a heavy crop of good wheat.

Here, then, is one mode of raising wheat without summer fallowing—with one ploughing only—and the farmer also has the use of the land for hay or pasture. This is an important consideration—and he also gets a crop of something every year. Most of our farmers might put in 15 or 20 acres of wheat annually in this way, on the land where they reaped their clover hay the same season.

The best fields of wheat the writer has seen this summer, are at this time growing on clover sward, after one ploughing. The rest of the land that the farmer intends for wheat, may be manured with long manure in the fall, and ploughed—or early in the spring, at his election—and planted with Beans, Peas, Potatoes, and Indian Corn.

Beans may be sown broad cast 3 bushels to the acre, and when sufficiently ripe may be cut with the scythe, and secured like hay.

An early variety of the potatoe ripens early in September—peas can always be removed in season, and the corn crop, though later, is so valuable to the farmer that it ought not to be neglected. Forty bushels to the acre is a common crop, and the stalks, if secured in season, are excellent fodder for young cattle and sheep.

In fact, the prejudices of our farmers against this crop are groundless. Lands suitable for it, properly manured, and well attended, almost always insure a large crop; and the expense of its production does not greatly exceed summer fallowing for wheat—and when properly secured, it is worth about as much as a crop of wheat—and the ground, if the corn has been well attended, with one ploughing, will be prepared for wheat—and this crop should follow that of corn, the same season—and the product of the wheat crop, if well put in, will be from 12 to 25 bushels to the acre—the same remark will apply to potatoes, beans and peas. The two last are considered ameliorating crops, the land being in a better state for the reception of the wheat than if none had been raised.

As it regards potatoes, no crop is so valuable to the farmer. They are now worth in the market 37½ cents, wholesale—and they will make for the farmer his pork, his beef, and are valuable as food for his horses, cattle, and pigs, during the winter and spring. Two hundred bushels to the acre is an ordinary crop, and when planted in rows, (not in hills,) more than three times that quantity has been produced. Thus, then, if the opinion of the writer be correct, the practice of summer fallowing may generally be discontinued, and the farmer greatly benefited. If you don't believe it, try it on a small scale and be satisfied.

Great improvements can yet be made in horses, cattle and sheep, in this country. In fact, our cattle, as a whole, are inferior to those of almost any other country. Our horses are rather better, but great improvements can yet be made here in this noble animal. At present, it is difficult to ascertain what remains yet to be done in this branch of husbandry in Tompkins county—and it is often difficult for the farmer to find a purchaser for the horses or cattle he may have for sale, and for individuals desirous of purchasing to know where to obtain them.

We therefore want an *Agricultural Fair*, for the sale of the productions of the farm. At this fair our farmers might exhibit their live stock, samples of wool, grain, &c., and find, without difficulty, ready purchasers, and fair prices, for their articles. A couple of days in the year, one in the spring and the other in October, might be advantageously spent by the principal farmers of Tompkins county, at such fairs. It is respectfully submitted for their consideration.

Manures.

Every individual who can make pretensions to a knowledge of farming, is aware of the importance of manures.

These, in the opinion of the writer, should be used for summer crops exclusively, except plaster—and the farmer should manure as much as he can thoroughly, at least ten wagon loads to the acre, and when properly done it will answer for ten years—on some soils longer. Long manure is the most valuable, when ploughed in. Ridiculous prejudices exist among some, otherwise good farmers, against the use of plaster. They erroneously suppose it will injure their land, in time, by exhausting it. In the river counties it has been freely used for half a century, and lands which before its introduction were worth $15 an acre, are now selling for from sixty to one hun-

dred dollars. It is of great value as a manure, and can be advantageously applied to meadows, (if not very wet,) pasture land, to corn and potatoes, and even to wheat, especially in dry seasons.

Late sown wheat should always be plastered in the spring, and some farmers think in the fall.

Wood ashes are also an excellent manure for most kinds of land, especially when mixed with plaster—principally as a top dressing, for corn and potatoes, and even for peas.

But the easiest and cheapest way to manure good arable lands, is by clover and plaster. In fact, the farmer should raise no other grass, for pasture, and upland stocked down for meadow should consist of this grass, mixed with wheat, which is termed timothy grass—and every farmer should raise his own grass seed.

It should be thickly sown in the herl, and the whole of the land sown with wheat should be seeded with clover. This system of husbandry not only greatly enriches the land, but keeps out weeds and other grasses less valuable and more difficult to subdue. In a word, it leaves the land at all times in a proper state for the reception of a crop of grain.

The large or mammoth clover is the most valuable species for this purpose, and, if thickly sown, will make good hay.

Some farmers raise two or more wheat crops in succession on the same land. This is a bad practice. The second crop is always uncertain, and it generally leaves the land covered with chess and cockle.

The good farmer will always endeavor to have a regular rotation of crops—first, corn, peas, or beans; then wheat, and then grass—and never two wheat crops in succession—or oats, or rye, after wheat; or in other words, his green crop will precede and follow his white one.

Two green crops in succession are also injurious to land, as corn after corn.

Corn should always be raised in sward land, and it should be highly manured. Peas will also grow well on a clover sward, ploughed in the fall, and also beans and potatoes.

I think I before remarked that corn should never be topped—it injures the grain, and the produce is less by 8 or 10 bushels to the acre.

But, sir, I find I am scribbling at a great rate, and must close my remarks for the present.

A Farmer.

P. S. I am a great enemy to oats, and a greater to flax; they are both great exhausters; and wheat should not follow either. Some of our farmers cultivate flax for the seed. It will prove to them the dearest crop they ever raised. The good farmer will not raise to sell either oats or flax. They may afford a quick return, but, on good wheat land, will in the end prove to him a dear crop. A heavy crop of corn is far less injurious than either, and the wheat crop after it will be better, provided the land was well manured in the spring.—*Tompkins Times.*

Management of the Dairy.

Extracts from the last edition of the "Complete Grazier."

On the Produce of a Dairy.

The produce of a dairy is to be regarded in a two-fold view, as it respects *quantity* and *value*. Both depend in a great degree upon management; for if the cow be injudiciously treated, or the butter and cheese be badly made, both the product and the price will be materially diminished. There is no part of farming more steadily profitable than the dairy; but, at the same time, none demands greater judgment and attention.

Of the three objects of the dairy—selling the milk, or, as it is commonly called, *cow-keeping; making butter and cheese;* and *suckling;*—the first is generally the most profitable, at the usual price obtained for the milk. It can, however, be only carried on in the immediate vicinity of large towns; and even there, the expense of providing fodder, and the fluctuations of its price, while that of milk seldom changes, together with the injury to the health and consequent value of their cows, from the close confinement to which they are usually subjected, and the nature of the food supplied for the purpose of producing an extraordinary flow of milk, often rendering it hazardous, and always an unpleasant business.

The making of butter and cheese, which may be distinctively termed *the dairy*, ranks next in the scale of profit; though we cannot but observe that this is contradicted in a late and very minute account of an extensive farm in the Vale of Berkeley, published under the sanction of the Society for the Diffiusion of Useful Knowledge.* However this may be, a well fed cow, of a good breed, will produce on an average, 180 lbs. of butter in the season; and this, where there is an immediate market for it while fresh, together with the value of the skim-milk, either in feeding pigs or making skim-milk cheese, will pay better than cheese alone. The common calculation is, indeed, 150 lbs.;† but this is made upon mixed stock, which afford no certain data. In the Epping district, where no particular attention is paid to the selection of stock, and where there is an indiscriminate mixture of Devon, Suffolk, Leicester, Holderness and Scotch, the calculation, in a well managed dairy, amounts to 212 lbs.

viz:

6 lbs. per week, during 26 weeks,.....156
4 lbs. per week, during 14 weeks,.....56‡

In forty weeks, which is full four weeks sooner than they need be generally allowed to go dry, and there is no doubt that, with proper care in the choice of the cow, and proper pasture to support them, that calculation would be supported in good years; it might not in parching seasons, but then all dairy produce must suffer equally. Mr. Aiton's calculation is, as we have already seen, 250 lbs. per annum; but that is for the best milkers of a very superior stock, and although it may be difficult to reach that quantity in any other than a very select dairy, yet there can be little doubt that, with proper attention to breed and feeding, the Epping average may be maintained.

The same gentleman calculates that 28 gallons of milk produce 14 lbs. of cheese, which presuming, as he does, that each cow gives a thousand gallons in the year, would give 857 lbs. of cheese,‖ and Mr. Ratston, another eminent Scotch dairyman, quoted by Mr. Aiton, says "that he would not keep a cow on his farm that did not yield her own value, or her weight, in sweet milk cheese every year."

The average product of *full milk cheese* in the best English dairies, where the whole milk and cream are used, cannot, however, be estimated at more than four cwt. In Leicestershire, indeed, and on other deep grazing soils, that carry heavy stock, a well managed cow is reckoned to make from three to five hundred, long weight of 120 lbs.,* besides supporting her calf until it can be weaned; but such cows require full three acres of the best meadows, for summer and winter keep, and it is not in the power of every farmer, if he even have the stock, to procure such land to maintain them. In Somersetshire, the average is four cwt. and a half;† in Essex, not so high;‡ and Mr. Marshall states that of all the midland counties at something more than three cwt.§

Suckling is generally considered the least profitable, as well as the most precarious, both from the accidents to which calves are liable, and the more variable price of veal than of butter and cheese: but it is also the least troublesome; and probably that and the making of butter combined, are the most advantageous, as thus: supposing a steady weekly demand for butter throughout the year, then the most advisable plan might be, to keep such a number of cows as would supply that demand during the winter; and in summer, when butter is cheap and veal in demand, to apply the extra milk, beyond the quantity required for the usual consumption of butter, to suckling calves, either for the market, or for stock, as may best suit the ulterior views of the farmer. This must, however, depend on the situation of the farm; for that may not always afford an opportunity for the acquisition of a succession of calves for suckling, or a market for them when fat; or it may not be adapted for the rearing of stock; and in such cases, the best application of the skim-milk is either to feed pigs, or to make skim-milk cheese. The usual time required for fattening calves for the butcher has been already stated to be ten or twelve weeks;|| perhaps less in summer, when the milk is abundant and rich; and more when it decreases in quantity and quality. But as the calf does not require the entire milk of the cow which has calved it, for some weeks after its birth, the cow will, for a short period, support two; and two cows, calving at different periods, may be calculated to fatten seven calves between them in the year. Compared with *grazing*, every branch of dairy husbandry will probably be found the most profitable; but the trouble and difficulty of management so far exceeds the mere feeding of cattle for the shambles, that it can only be carried on, in most instances, to a much more limited extent. It has also the superiority in other points of considerable importance on farms where the mixed system of tillage and grazing is adopted, that it does not require so rich a soil as that for fattening beasts, and that it produces food for pigs, or calves, and thus, by nourishing more animals, creates additional manure and a profitable consumption of the crops on the spot. It has been calculated, that the herbage which will add 112 lbs. to the weight of an ox, will enable a dairy cow to yield 450 gallons of milk; which, upon reference to our previous statements of the average produce of milk in butter, cheese, or veal, and pork, will be found to exceed the return in meat, after making every fair allowance for the additional expense of management. Mr. Aiton estimates it at more than double;¶ but his statements have been combatted, and, to that extent at least, are certainly questionable.

In *feeding pigs*, it has been found that four cows will, in the season, fatten a pig of 40 pounds weight, to twelve score, which is fifty pounds each cow, besides keeping the calves until weaned; and pigs, it may be remarked, have been fattened to great weights upon milk alone.

Some dairymen allow two hogs to five cows, also rearing the calves; but experience proves, that two cows will support a two year old hog

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* See the Report of the Gloucestershire Farms, No. IV. in the twenty-first number of the Farmer's Series of the Library of Useful Knowledge.

† In the Sussex Agricultural Survey there is an account of the produce of the Duke of Richmond's dairy, from which it appears that the cows, all Suffolk, produced an average of only 136 lbs. in the season; but it does not mention how they were fed; probably they were pastured in the park.

The same survey mentions a Sussex cow, that for some weeks after calving gave ten pounds of butter, and twelve pounds of cheese per week; and another is mentioned in the Hampshire Report that yielded from fifteen to sixteen pounds of butter, during part of the season; besides many other instances of equally extraordinary produce.

‡ Essex Agricultural Survey, vol. II. p. 289.

‖ *Dairy Husbandry, p.* 53. It is much to be regretted that Scotch writers on husbandry do not take the trouble to reduce their provincial weights into the common standard. Three different ones are in use, and unless they are distinctly specified, much confusion is occasioned in calculations: Mr. Aiton's words are, "fifty-five pints (*Scotch*) will produce one stone (*county weight*) of full milk cheese." Now the above calculation is grounded on the Scotch pint containing two English quarts, and the Ayrshire stone 16 lbs. of 24 oz., but in some places the pound consists of only twenty-two ounces and a half.

* Leicester Agricultural Survey, pp. 154 and 227. Cheshire do. p. 271.

† Somerset Agricultural Survey, 3d Edit. p. 251.

‡ Essex Agricultural Survey, Vol. II. p. 271.

§ Rural Economy of the Midland Counties, 3d Edit. Vol. 1. p. 326.

‖ See Book I. Chap. VII.

¶ Dairy Husbandy, p. 171.

until he is put up to fatten. In the neighborhood of a good market, it will, however, be most profitable to fatten porkers.

Of *skim-milk cheese*, the quantity may be calculated at two cwt. from each cow; but in comparing the two modes of employing the milk, there must be deducted from the product of this application of it the value of the dung that would have been made by the pigs.

Throughout the system of dairy management, the vigilant eye of the principal ought carefully to pervade, as it rarely happens that servants are to be found who will give that minute attention to every particular, which is so indispensably necessary to ensure success. On this account, it is more likely that a dairy-farm of a moderate size —one for instance that will keep 10 to 20 cows —will, if well managed, afford a larger proportionate profit than one of a greater extent; because in the former case, the farmer's wife and daughters can more easily superintend, or perhaps perform a considerable part of the dairy operations themselves; and this is always better done by them than it can ever be expected to be by hired servants. No branch of husbandry, in fact, deserves and requires such unremitting attention. "If," Sir John Sinclair very justly remarks, "a few spoonfuls of milk are left in the udder of the cow at milking—if any one of the implements used in the dairy be allowed to be tainted by neglect—or if the dairy-house be kept dirty, or out of order—if the milk is either too hot or too cold at coagulating—if too much or too little rennet is put into the milk—if the whey is not speedily taken off—if too much or too little salt is applied—if the butter is too slowly or too hastily churned—or if other minute attentions are neglected, the milk will be in a great measure lost. If these nice operations occurred only once a month, or once a week, they might be easily guarded against; but as they require to be observed through every stage of the process, and almost every hour of the day, the *most vigilant attention* must be kept up throughout the whole season. This is not to be expected from hired servants. The wives and daughters of farmers, therefore, having a greater interest in the concern, are more likely to bestow that constant, anxious, and unremitting attention to the dairy, without which it cannot be rendered productive."*

Harvest Drinks.

Every man of practical experience, at least, knows, that mid-summer laborers in the harvest and hay fields, must swallow a good quantity of liquids in the course of the day, to supply the exhaustion occasioned by copious perspiration. Ardent spirits are now proscribed by common consent and common usage; they inflame the blood, increase thirst, rouse and foster the worst passions, and are often the cause of fixed habits of intemperance. To discover a good substitute is a desideratum. Pure water, in large quantities, is rather debilitating, and withal often hurtful. Any considerable portion of molasses, either with water or small beer, is also too relaxing, without something additional to counteract this tendency. Our common practice for two seasons was to mix one part sound cider with three of water, and to add molasses, and sometimes ginger, to suit the palate. But last season, the cider being scarce, accident led to the adoption of a new harvest beverage, which we venture to say is surpassed by no other for the grateful and healthful influence upon the strength and spirit of the harvest laborer. A Scotchman, not liking our Yankee drinks, begged a little oat-meal, that he might just make a wee bit o' Scotch drink. He was indulged; and by degrees, our Yankees, Irish and English, for we happened to have all these about us, became so partial to the Scotch drink, that it was adopted as the field drink by general acclamation. It is cooling, strengthening and allays thirst—it is truly *victuals and drink*. A respectable Scotch farmer, residing in Montgomery, assured us, that during 18 months, while employed as a shepherd among the hills of Scotland, he took not a particle of other subsistence, than oat-meal and water, and almost entirely without any preparation—and that he never enjoyed 18 months more perfect health in his life.

Here then is an excellent substitute for ardent spirits, in the labors of the harvest, which may be accessible to all, and at trifling expense— promotive of health, strength and kind feelings. Oatmeal is becoming an article of commerce; it is useful, in many ways, in the economy of a family, and may be readily kept by every farmer.

To make this *Scotch Drink*, denominated *Crowdy*, put a tea-cup full of oat-meal into two gallons of water, and stir well before drinking.—*Cultivator.*

* Sir John Sinclair on the Husbandry of Scotland, Vol. II. p. 124.

Look to the Sources of Information.

The success of the silk enterprise in this country depends mainly upon correct information in the outset. A wrong start is almost sure to be followed with discouragement and loss, if not total abandonment of the object. Hence it is advisable to be cautious about following the directions given in loose newspaper paragraphs some of which are hastily written by editors, unacquainted with the business, and others copied or rather garbled from the writings of practical culturists. An instance of the kind will be sufficient to illustrate the uncertainty of this kind of information. Some time since Judge Spencer of Albany, published a valuable letter on the subject of the culture of silk, in which he stated that an ounce of seed would produce about 5000 plants. The editor of a New Bedford paper, in remarking upon it, has made the Judge to say 50,000 which is probably multiplying in a ratio, which the Judge would be unwilling to adopt. Should the next copyist add another cypher, the product would be truly astonishing.

While on this subject we will say that from actual computation we have found an ounce of white mulberry seed to contain 18,000 kernels—what part will vegetate depends upon the quality of the seed and the manner of sowing it.—*Silk Culturist.*

Soak Your Seed.

The suggestion of a practical gentleman in corroboration of our own experience on the subject, has satisfied us that mulberry seed ought never to be sown until it has been soaked in water blood warm for at least thirty-six hours. It will vegetate quicker, grow more vigorously and ensure a much greater number of plants.—*Ib.*

Petrified Buffalo.—This extraordinary curiosity was discovered about two years since by some trappers belonging to Captain Bent's company, lying on the side of one of the beaver dams of the Rio Grande of the north, (a stream emptying itself into the Gulf of California,) whose waters, it is said, possess the petrifying qualities to an eminent degree, its shores abounding in specimens of various animal and vegetable productions in a petrified state. The petrified Buffalo is described by those who have seen it, to be as perfect in its petrifaction as when living, with the exception of a hole in one of the sides, about four inches in diameter, around which the hair has been worn off, probably by the friction of the water, in which it must have lain for ages past to have produced such a phenomenon. The hair on the hump and shoulders, neck, forehead and tail, though concreted into almost a smooth surface, may be easily discerned. The horns, eyes, nostrils, mouth and legs, are as perfect in their stone as in their pristine state.

The country in which this rare specimen was found, is inhabited by the Euteaux, a roving tribe of savages, who subsist a great portion of their lives on insects, snakes, toads, roots, &c. This tribe being particularly hostile to the whites, renders the acquisition of this curiosity an undertaking not a little hazardous; notwithstanding this, and many other difficulties to be surmounted, such as distance, expense, &c., our enterprising citizen, Captain Charles Bent, contemplates procuring and bringing it to the United States with him, on his return from Santa Fe, during the ensuing autumn. We heartily wish him success in his praiseworthy undertaking.—*St. Louis Commercial Bulletin.*

Another Wonder.—On Sunday evening, last, within a short distance of Hudson, on the Claverac road, about an acre of ground sunk suddenly, over twenty feet, perpendicularly. The fruit trees, kitchen garden, &c. of the owner are as flourishing as in their old location. About one third of the turnpike, is embraced in the portion sunk. We understand that this is the third occurrence of the kind which has taken place in that vicinity. The creek being within a short distance, it is supposed that its waters have been gradually undermining the portion which fell.—The head of the creek, it is understood, is raised, as was also, as some persons remarked, the opposite bank.—*Alb. Eve. Jour.*

The Army Worm.—Some of the western papers are loud in their complaints of the ravages of a destructive worm, called the Army Worm. It is particularly injurious to rye fields and meadows, according to the Maysville Eagle, which states that a grass lot contiguous to the road near that town, has been completely stripped of leaves by these voracious and destructive foragers. A correspondent of the Cincinnati Gazette, dating from Anderson township, mentions that the Army Worm has made its appearance in that neighborhood to an alarming degree. He mentions a meadow of eight acres belonging to himself, that has literally been devoured by them, and they were on their march in quest of other subsistence. Great fears were entertained among the farmers as to the probable extent of the ravages of this worm. When first discovered it is said to be about an inch in length, rather slender, of a dark brown, (varying to black,) white streaks on the side—the head of an amber color and as hard as a flint. In five or six days time, they acquire the full size, and are then upwards of two inches in length. At this period, it is said one of these worms will eat a large blade of grass, in a couple of minutes. Wherever they appear, it is in great force, and hence they are called *Army* Worms.

List of Payments

For the Farmer from June 5, to July 1, 1835.

(Concluded.)

Last half vol. 5.

Ebenezer Bowen. | Silas Barnes.
Ira Fisher. | John N. Pease.
Oliver L. Millard.

For the Fourth Volume.

Charles Butler. | James D. Bemis.
Grindal Davis.

To July 1, 1835.

Tho's J. Whitbeck. | Isaac Beale.
Jonathan Sayer. | B. S. Cheever.
Horatio Pratt, to June, 1836.

A Valuable Farm for Sale.

ON the Ridge Road, south side, two miles from the canal, in the town of Murray, Orleans county, upwards of 200 acres, 130 highly cultivated, about 100 acres wheat now in the ground, besides oats, corn, potatoes, &c.—buildings large and convenient. This is desirable property, being situated on the best road in this state,—the soil varied, and every variety of the richest kind. The situation too is delightful. Price moderate—terms easy. Inquire on the premises of W. B. ILES.

july 11-frtf

The American Poplar.

LIRIODENDRON TULIPIFERA.

The vegetable world, says Dr. J. Bigelow, in his excellent work on 'American Medical Botany,' can hardly offer a more interesting object, than a tree of exalted stature and extensive shade, covered with a beautiful and singular foliage, putting forth from its boughs an immense number of large and variegated flowers, at the same time that its trunk affords one of the most useful species of wood, and its bark an aromatic medicinal agent. Such an one is the Tulip tree of the United States.

The forests of the middle and western states, according to the representation of Michaux, abound with the Liriodendron Tulipifera, as do likewise the elevated parts of Carolina and Georgia. It is found in the New England states, but it is principally confined to the Southern parts of them.

In point of size, the Liriodendron is exceeded by few trees of the North American forest. Its growth is regular, straight and majestic. Its trunk often acquires a diameter of from two to three feet, and an elevation of eighty or ninety. In favorable situations, it frequently exceeds these dimensions. Michaux measured a tree near Louisville, in Kentucky, which at five feet from the ground, was twenty-two feet and a half in circumference, and which he estimated to be a hundred and twenty or a hundred and forty feet in height. Catesby informs us that the circumference is sometimes thirty feet.

The names of *Tulip tree*, *White wood*, *Canoe wood*, and *Poplar*, are applied to this tree, in different parts of the United States. Its flowering time is the months of May and June.

The leaves of the tulip tree have a form altogether peculiar, and which is not resembled by any other productions of our forests. They are divided into four pointed lobes, and terminated by a shallow notch, the extremity being nearly square, and the middle rib ending abruptly, as if cut off. In the large leaves, the two lower lobes are furnished with a tooth or additional lobe, on their outside.

The flowers are large, solitary, and terminal. The outer calyx has two triangular leaves which fall off as the flower expands. The inner calyx consists of three large oval, concave, veined leaves of a pale green color spreading at first, but afterwards reflexed. Petals six, sometimes more, obtuse, concave, veined, of a pale yellowish green, marked with an irregular, indented crescent of bright orange on both sides towards the base.—Stamens numerous, with long linear anthers, opening outwardly, and short filaments. Pistil a large, conical, acute body, its upper half covered with minute blackish, recurved stigmas; its lower furrowed, being a mass of coalescing styles and germs. The fruit is a cone of imbricated seed vessels, which are woody and solid, their upper portion formed by a long lanceolate scale. Seeds two, blackish, ovate, one or both often abortive.

The bark of the Tulip tree has a very bitter taste, and a strong aromatic pungency. The latter property appears to reside in a volatile oil.—When the bark is distilled with water, it fills the apartment with its fragrant odor, yet the product of the distillation, at least when the process is conducted in the small way, with the luting of the apparatus not perfectly tight, has scarcely any taste or smell.

The wood of the Tulip tree is smooth and fine grained, very easily wrought, and not liable to split. It is used for various kinds of carving and ornamental work, and for articles of house furniture. In the Western states, where pine lumber is scarce, Michaux tells us, that the joinery or inside work of houses is most frequently of this material. A common use of it throughout the United States is in the manufacture of carriages, to form the pannels of coach and chaise bodies. For this purpose it is particularly fitted by its smoothness, flexibility, and toughness.

The Tulip tree has been long since introduced from this country into the forests and fields of Europe. Its use, ornamental appearance, and the facility with which it is raised, have rendered it one of the most prominent and interesting objects of forest cultivation.

Deaths by Tobacco.—The Rev. Orin Fowler, of Fall River, has published a disquisition on the evils of using tobacco, in which he relates the following remarkable instances of deaths by the inordinate use of tobacco:

The late Gov. Sullivan, speaking of Gov. Hancock, the early President of Congress, says, "Governor Hancock was an immoderate chewer of tobacco: but being a well bred man, and a perfect gentleman, he from a sense of decorum, refrained from spitting in company, or in well dressed rooms. This produced the habit of swallowing the juice of the tobacco, the consequence of which was, his stomach became inactive, and a natural appetite seldom returned; the agreeable sensation of hunger could not be experienced but by the use of stimulants, to satisfy which he swallowed more food than his digestive powers could dispose of. This derangement in chylification increased his gout, his stomach became paralytic, and he died at the age of fifty-eight."

Again, says Governor Sullivan—"My own brother, the active General Sullivan, began early in life to take snuff. It injured essentially a fine voice which he possessed as a public speaker.—When he was an officer in the American army, he carried his snuff loose in his pocket. He said he did this because the opening of a snuff box in the field of battle, was inconvenient. At times he had violent pains in the head; the intervals grew shorter and shorter, and the returns more violent, when his sufferings ended in a stroke of palsy, which rendered him insensible to pain, made him helpless and miserable, and lodged him in the grave before he was fifty years of age; and I have no doubt," says the Governor, "but all this sprang from the use of snuff. He adds—"I have known some persons to live to old age in the extravagant use of tobacco; but they bear a small proportion to those who, by the habit of using tobacco, have been swept into the grave in early or middle life."

Rocky Mountains.—The distance of the Rocky mountains from the Pacific, is said to be about the same as that of the Alleghanies from the Atlantic; but the extent and height are far greater than those of the Alleghanies. The area of their base is immense. They have not been thoroughly explored; but they are said to be of primitive formation. It is supposed that some of the peaks are volcanic; but it has not been ascertained that this is the fact. The distance from St. Louis, at the junction of the Missouri with the Mississippi, to the Rocky mountains, is two thousand and five hundred miles, and from the western settlement of Missouri, eight or nine hundred. There is a belt of Woodland for two hundred and fifty or three hundred miles from the Mississippi, and then begins extensive plains reaching to the foot of those mountains. These plains are mostly a barren desert, like some parts of Arabia; and are visited or possessed by buffaloes and other wild animals.

Some branches of the Missouri river run a great distance among the mountains; and the gates of the river, so called, seem to have been formed by the rushing of the water from the higher parts of the mountains to the plains below. The banks of the river, in the mountains, are twice the height of the mountains on North river, near West Point. The chasm is one hundred and fifty yards wide.

The range is frequently called the Oregon mountains. It is nearer to the Pacific ocean than to the Mississippi river; and the Oregon has its rise on the western slope. Their black and precipitous appearance has given them the name by which they are generally known in the United States. The sources of rivers running in[to] the Mississippi east, and the Oregon we[st] are not very distant; and in some parts [be]tween places or valleys; which had [been] there are low that a canal will be made t[o] ed to the belief and western rivers, withi[n] connect the eastern half a century.—*Amer. Mag.*

The Pleasures of Virtue.—If it be a proof of benevolence in God, that our external organs should have been so framed, as to have a liking for wholesome food, it is no less the proof of a benevolent and righteous God, so to have framed our mental economy, as that rigid and wholesome morality should be palatable to the inner man.—Virtue is not only seen to be right, it is felt to be delicious. There is happiness in the very wish to make others happy. There is a heart's ease or a heart's enjoyment, even in the first purposes of kindness, as well as subsequent performances.—There is a certain rejoicing sense of clearness in the consistency, the exactitude of justice, and there is a triumphant elevation of spirit in magnanimity and honor. In perfect harmony with this, there is a placid feeling of sincerity and blissful contentment in gentleness and humility. There is a noble satisfaction in those victories, which, at the bidding of principle, or by the power of self-command, may have been achieved over the propensities of animal nature. There is an elate independence of soul, in the consciousness of having nothing to be ashamed of. In a word, by the constitution of our nature, each virtue has its appropriate charm; and virtue on the whole, is a fund of varied as well as perpetual enjoyment to him who hath imbibed its spirit, and is under the guidance of its principles. He feels all to be health and harmony within; and he seems to breathe as if in an atmosphere of beauteous transparency, proving how much the nature of man and the nature of virtue are in unison with each other. It is hunger which urges to the use of food; but it strikingly demonstrates the care and benevolence of God so to have fermented the organ of taste, that there shall be superadded enjoyment to the use of it. It is conscience which urges to the practice of virtue; but it serves to enhance the proof of a moral purpose, and, therefore, of a moral character of God, so to have framed our mental economy, that in addition to the felt obligations of his righteousness, virtue should of itself be so re-galing to the taste of the inner man.

Power Loom Silk.—At the Valentine Factory, in this city, the power loom has been successfully applied to the manufacture of silk. Mr. Gay, the inventor of the improvements in silk machinery, which promise to make the growth and manufacture of silk the great business of New England, has applied for a patent for the application. The first attempt to manufacture silk with the power loom was made by Mr. Gay more than a year ago, but it was at that time imperfecly tested. It is now satisfactorily ascertained that the loom will work as well on silk as upon cotton, and that, with experience in the management of it, it will probably turn off about as great a number of yards of the former fabric as it does of the latter. We saw a piece of silk of great firmness and beauty cut from this loom last Friday. It was of the natural color of the silk, and was a choice material for vests and pantaloons. The company are about substituting these chiefly in the place of the hand loom.—*Providence Journal.*

These studies are as food to us in our youth, they delight us in more advanced years, they are ornaments to a prosperous state, they afford us comfort and refuge in adversity, they amuse us at home, they are unembarrassing to us when abroad, they pass our nights with us, they accompany us on our travels, and in our rural retirement.—*Cicero.* Coming from such [an] authority, what a strong incitement this [pa]ssage should be to all young persons, to application to lit[erary] cultivate their minds, by pursuits.

There is in all things one happy medium, beyond, or at the side of which, rectitude cannot exist.—*Horace.* It is an incontrovertible position, that true virtue must be sought in a *middle course*, as extremes always lead to vice. Thus fanaticism and atheism form the two extremes, while pure religion is the middle virtue. Avarice and prodigality, where generosity constitutes the happy medium.